

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Shinya MATSUOKA
Serial No.: 08/841,397
Filing Date: April 30, 1997
Confirmation No.: 3144
Group Art Unit: 2151
Examiner: Khanh Q. Dinh
Title: **SPATIALIZED AUDIO IN A THREE-
DIMENSIONAL, COMPUTER-BASED SCENE**

MAIL STOP AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

PRE-APPEAL BRIEF REQUEST FOR REVIEW

The following Pre-Appeal Brief Request for Review ("Request") is being filed in accordance with the provisions set forth in the Official Gazette Notice of July 12, 2005 ("OG Notice"). Pursuant to the OG Notice, this Request is being filed concurrently with a Notice of Appeal. Applicant respectfully requests reconsideration of the Application in light of the remarks set forth below.

REMARKS

Applicant contends that the rejections of Claims 1, 3-9, 11-18, 20-25, and 45-48 on prior art grounds contain clear legal and factual deficiencies, as described below. In a Final Office Action mailed April 7, 2006 (the "Final Office Action"), Claims 1, 3-5, 7, 9, 11, 12, 13, 18, 20, 21, 24, 45, 47, and 48 were rejected under 35 U.S.C. § 103(a), as being unpatentable over U.S. Patent No. 5,710,591 issued to Bruno et al. ("*Bruno*"), in view of Cohen et al., "Virtual Gain for Audio Windows," IEEE 1993 ("*Cohen*"); Claims 6, 14-16, and 23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Bruno* and *Cohen* and further in view of U.S. Patent No. 5,764,750 issued to Chau et al. ("*Chau*"); and Claims 8, 17, 25, and 46 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Bruno* and *Cohen* and further in view of U.S. Patent No. 5,864,816 issued to Everett ("*Everett*").

With respect to Claim 1, the Final Office Action contends the *Bruno-Cohen* combination suggested by the Examiner teaches, suggests, or discloses "attenuation means operable to provide distance-based attenuation according to a plurality of predetermined sound decay characteristics, each sound decay characteristic being associated with a respective volume/distance relationship." The Final Office Action, however, is incorrect. As discussed in Applicant's Response mailed December 19, 2005 at page 15-16, the portion of *Cohen* relied upon by the Examiner as disclosing this plurality of sound decay characteristics actually discloses a single distance-dependent gain (*i.e.*, volume) function chosen to achieve a predetermined falloff. *See Cohen*, § 1.2. The Examiner, however, argues that since *Cohen*'s "virtual gain is calculated by the effects of the distance between source and sink," this single gain function discloses such a plurality of sound decay characteristics. Final Office Action, p. 3. This logic, however, is clearly flawed. *Cohen* merely discloses that the single disclosed gain function is dependent on the distance between the source and the sink. This means that the multiple sources may be located at different points along the same gradually-decaying gain curve. This does not mean that *Cohen* teaches, suggests, or discloses "a plurality of predetermined sound decay characteristics" or that each is "associated with a respective volume/distance relationship." Because of this, the *Bruno-Cohen* combination proposed by the Examiner fails to teach, suggest, or disclose each and every element of Claim 1. As such, the rejection of Claim 1 is improper, and Applicant respectfully requests that it be withdrawn.

With respect to Claim 7, the Final Office Action contends the *Bruno-Cohen* combination inherently teaches, suggests, or discloses a “means for identifying a decay factor from one of a plurality of pre-defined decay factors and a customized decay factor for each of the plurality of audio clients, the plurality of pre-defined decay factors including an audio big decay factor, an audio small decay factor, an audio medium decay factor, and a constant decay factor.” Again, the Examiner relies on *Cohen*’s disclosure that “[v]irtual gain is calculated by the effects of the distance between source and sink,” and again, the Examiner is incorrect. Office Action, p. 5. As discussed in Applicant’s Response mailed December 19, 2005 at page 17, the portion of *Cohen* relied upon by the Examiner actually discloses a single distance-dependent gain function that is dependent on the distance between the source and the sink. See *Cohen*, § 1.2; fig 3. This means the multiple sources may be located at different points along the same gradually-decaying gain curve. In contrast, Figure 7 of the present application clearly shows that each decay factor as recited in Claim 7 is not a point on a curve, but rather an entire curve itself. As such, the single gain curve disclosed in *Cohen* does not teach, suggest, or disclose “a plurality of pre-defined decay factors” as recited in Claim 7. For at least this reason, the rejection of Claim 7 is improper. Therefore, Applicant respectfully requests that the rejection of Claim 7 be withdrawn.

Additionally, Applicant submits that Claims 3-6, 8, 9, 11-18, 20-25, and 45-48 contain limitations similar to those recited in Claims 1 and 7. Therefore, Applicant requests that the rejections of Claims 3-6, 8, 9, 11-18, 20-25, and 45-48 be withdrawn as well.

CONCLUSION

As the rejections of Claims 1, 3-9, 11-18, 20-25, and 45-48 contain clear deficiencies, Applicant respectfully requests full allowance of Claims 1, 3-9, 11-18, 20-25, and 45-48. To the extent necessary, the Commissioner is hereby authorized to charge any required fees or credit any overpayments to Deposit Account No. 02-0384 of Baker Botts L.L.P.

Respectfully submitted,
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